

West Boggs Creek Reservoir
Daviess and Martin Counties
Supplemental Survey

Date of Survey: June 11, 12, 18, 19, 2007

Assistant Biologist: Debbie King

Survey Objective: Continue to monitor the effects of winter drawdowns as a means of controlling the gizzard shad population at West Boggs Creek Reservoir. Species studied under the Gizzard Shad Experimental Management Strategic Plan are gizzard shad, largemouth bass, bluegill, and redear through supplemental surveys of West Boggs Creek Reservoir. Data collected for these species will be analyzed by the project leader for the purpose of future management of shad infested lakes.

Methods: Fish collection effort consisted of four hours of pulsed DC night electrofishing at 16 standard sites. All fish were measured to the nearest 0.1 in (TL). Scales samples for largemouth bass, gizzard shad, bluegill, and redear were collected for age and growth determination (Anderson 1996). All species were collected for lake inventory information.

Summary: The bluegill sample consisted of 4,298 fish ranging from 1.7 to 7.2 in TL. The electrofishing catch rate was 1075 bluegill/h. The PSD was 6, down from 12 in 2006 (King 2007) (Figure 1). Mean length at age for an age-5 bluegill was 6.6 in TL (Table 1). Seventeen percent of bluegill collected were of harvestable size. Bluegill growth has decreased drastically since 2002 (Schoenung 2003). Predator pressure necessary to maintain a good bluegill fishery is no longer sufficient. Bass have shifted preference to shad and corresponding bass electrofishing catch rates have declined to ¼ the pre-shad catch rates (Table 2).

The largemouth bass sample consisted of 207 fish ranging from 4.9 to 20.0 in TL. In 2002, the pre-shad catch rate for bass was 197 bass/h (Figure 2). The electrofishing catch rate was highest in 2004 with 215 bass/h and has drastically declined to 52 bass/h in 2007. The PSD was 90, up from 79 in 2006. The RSD15 was 46 and RSD20 was 1. The rising PSD and corresponding reduction in catch rates is a reflection of reduced recruitment, predicted by Schoenung in 2002. Age-1 bass accounted for 9% of the bass collected compared to 26% in 2002 (Table 2). Bass grew well, reaching legal size by age 4. Fifty-six percent of the bass collected were 14.0 in TL and greater (40% in 2006).

There were 1,350 gizzard shad collected ranging from 1.2 to 15.0 in TL. The electrofishing catch rate remains high at 338 shad/h. Ages 1 through 4 were represented. Shad growth has declined from initial rates documented in 2002 when age-1 shad averaged 12.2 in TL. Annual young-of-the-year shad growth varies year to year, appearing faster following a substantial winter kill. However, because winter kills do not occur annually, any positive effects are soon lost due to increased recruitment the subsequent spring. The use of winter drawdowns as a shad management tool to improve or maintain the fishery at West Boggs has been ineffective to date.

The 202 redear collected ranged from 4.3 to 9.1 in TL. The electrofishing catch rate was 51 redear/h, compared to 86 redear/h in 2006. The redear PSD was 19. The pre-shad PSD was 82 in 2002.

Twenty-three channel catfish ranging from 6.3 to 16.9 in TL were collected. The most recent channel catfish stocking took place in October 2005, with 3,119 fish ranging from 3.5 to 12.7 in TL. Based on documented natural reproduction, channel catfish stockings were discontinued. Smaller channel catfish collected during this survey is further documentation that natural reproduction is occurring at West Boggs.

Fourteen common carp ranging from 14.6 to 28.4 in TL were collected in this survey. Carp have been collected each year since 2005.

Other species sampled for general inventory information were yellow bullhead, green sunfish, hybrid sunfish, golden shiner, black bullhead, black crappie, and brown bullhead.

Annual winter drawdowns at West Boggs Creek Reservoir are part of the Gizzard Shad Experimental Management Strategies work plan #FISH07507 to control shad populations. Size structure and growth information on gizzard shad and game fish will be collected annually through 2011. The next supplemental survey of West Boggs Creek Reservoir is scheduled for 2008.

Literature Cited:

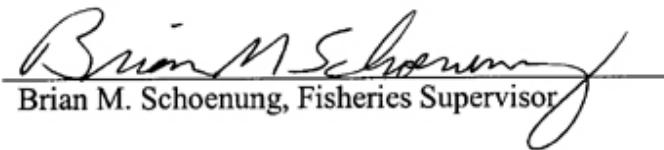
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Schoenung, B.M. 2003, West Boggs Creek Reservoir, 2002 Fish Management Report, Indiana Department of Natural Resources, Indianapolis, Indiana.

Submitted by: Debbie King, Assistant Fisheries Biologist
Date: February 22, 2008

Approved by: David S. Kittaka, Fisheries Biologist

Approved by: 

Brian M. Schoenung, Fisheries Supervisor

Date: April 30, 2008

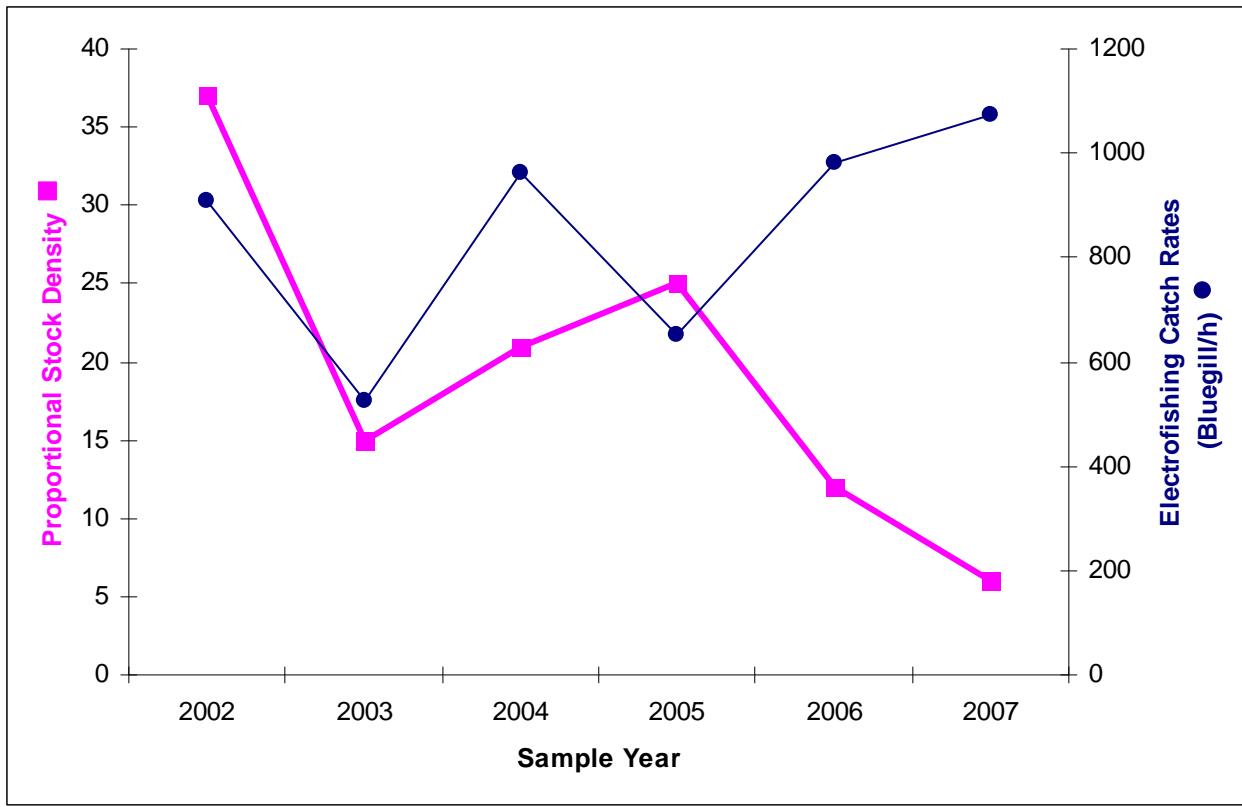


Figure 1. Bluegill proportional stock density compared to the electrofishing catch rates from 2002 through 2007 at West Boggs Creek Reservoir.

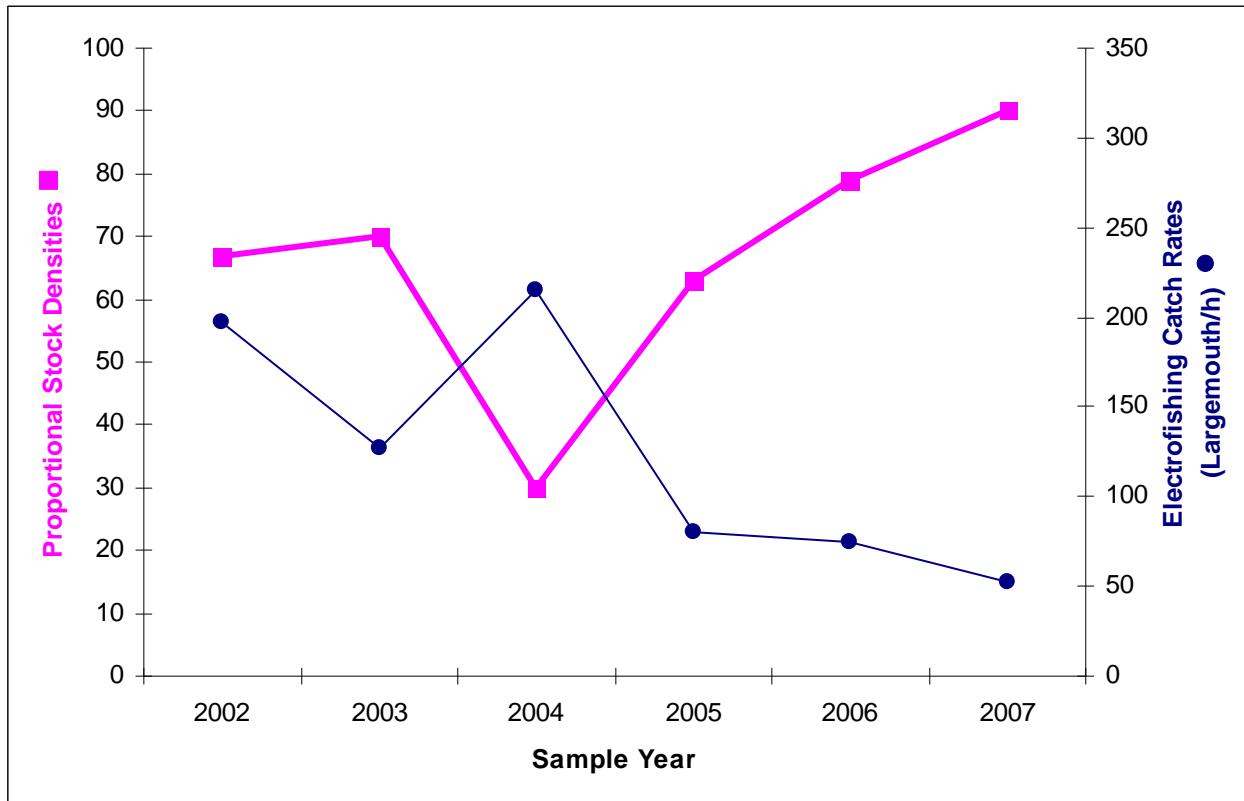


Figure 2. Largemouth bass proportional stock density compared to the electrofishing catch rates from 2002 through 2007 at West Boggs Creek Reservoir.

Table 1. Bluegill Length at Age at West Boggs Creek Reservoir, 2002 to 2007.

2002	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	967	3.0	0.31	0.02	2.97	3.04
	2	805	5.9	0.59	0.03	5.85	5.96
	3	183	7.9	0.13	0.03	7.89	7.99
	4	5	8.9	0.07	0.12	8.67	9.15
	5	7	9.4	0.06	0.10	9.21	9.60
2003	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1						
	2	188	3.8	0.98	0.07	3.66	3.95
	3	893	5.5	0.35	0.02	5.43	5.51
	4	45	6.6	0.25	0.08	6.48	6.78
	5	13	7.8	0.00	0.00	7.75	7.75
	6	4	7.8	0.00	0.00	7.75	7.75
2004	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	163	3.0	0.24	0.04	2.89	3.04
	2	999	4.9	0.50	0.02	4.89	4.97
	3	253	6.4	0.27	0.03	6.38	6.51
	4	19	6.8	0.00	0.00	6.75	6.75
2005	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	709	3.2	0.20	0.02	3.16	3.22
	2	1253	4.9	0.49	0.02	4.84	4.92
	3	421	6.3	0.31	0.03	6.20	6.31
	4	228	7.0	0.08	0.02	6.93	7.01
2006	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	920	3.0	0.17	0.01	2.95	3.01
	2	1644	4.0	0.27	0.01	3.97	4.02
	3	869	5.1	0.30	0.02	5.07	5.14
	4	426	6.3	0.39	0.03	6.22	6.35
	5	51	6.6	0.17	0.06	6.47	6.70
	6	8	7.8	0.00	0.00	7.75	7.75
2007	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	102	2.4	0.08	0.03	2.3	2.5
	2	2477	3.9	0.13	0.01	3.8	3.9
	3	1380	4.6	0.36	0.02	4.5	4.6
	4	322	6.1	0.66	0.05	6.0	6.2
	5	17	6.6	0.23	0.12	6.3	6.8

Table 2. Largemouth bass Length at Age at West Boggs Creek Reservoir, 2002 to 2007.

2002	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	95	6.1	1.10	0.11	5.88	6.31
	2	101	11.1	1.31	0.11	10.84	11.29
	3	42	13.6	0.77	0.13	13.36	13.90
	4	93	14.8	1.00	0.10	14.62	15.04
	5	29	14.9	0.78	0.16	14.58	15.24
2003	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	36	5.8	0.93	0.16	5.50	6.14
	2	63	10.8	1.43	0.15	10.49	11.09
	3	34	13.9	1.40	0.20	13.49	14.30
	4	35	14.7	1.12	0.18	14.38	15.09
	5	12	15.8	0.64	0.23	15.35	16.27
	6	11	17.0	0.41	0.20	16.65	17.44
	7	4	17.3	0.00	0.00	17.25	17.25
2004	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	146	6.1	2.39	0.13	5.89	6.40
	2	112	8.9	1.83	0.13	8.65	9.16
	3	26	12.6	3.53	0.37	11.84	13.32
	4	20	14.7	2.88	0.38	13.90	15.42
	5	15	15.6	3.64	0.49	14.62	16.57
	6	1	17.8				
2005	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	84	6.2	1.09	0.11	5.9	6.4
	2	63	10.5	1.24	0.14	10.2	10.7
	3	90	12.3	0.84	0.10	12.1	12.5
	4	35	14.2	2.14	0.25	13.7	14.7
	5	28	16.2	1.07	0.20	15.8	16.6
	6	18	18.3	1.24	0.26	17.8	18.9
	7	3	19.1	0.33	0.33	18.4	19.8
	8	1	21.3				
2006	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	15	4.9	0.31	0.14	4.6	5.2
	2	48	8.3	1.96	0.20	7.9	8.7
	3	70	12.4	1.85	0.16	12.0	12.7
	4	113	14.2	1.30	0.11	14.0	14.4
	5	25	14.7	2.02	0.28	14.2	15.3
	6	10	16.3	3.62	0.61	15.1	17.5
	7	8	17.5	1.68	0.46	16.6	18.4
	8	3	18.7	1.68	0.72	17.2	20.1
	9	6	19.4	1.44	0.48	18.5	20.4
	10						
	11	1	19.8				
2007	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	19	6.3	1.62	0.29	5.75	6.91
	2	33	12.2	1.61	0.22	11.73	12.60
	3	38	13.4	0.88	0.15	13.13	13.74
	4	44	14.9	0.82	0.14	14.64	15.18
	5	44	15.8	1.55	0.19	15.46	16.21
	6	18	17.2	1.21	0.26	16.68	17.70
	7	10	18.7	1.93	0.44	17.77	19.53
	8						
	9	1	16.8	0.00	0.00	16.75	16.75

Table 3. Gizzard Shad Length at Age at West Boggs Creek Reservoir, 2002 to 2007.

2002	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	42	12.2	NA	NA	NA	NA
2003	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	1631	6.3	0.79	0.02	6.22	6.30
2004	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	18	9.0	2.17	0.34	8.29	9.67
	2	143	8.2	0.69	0.07	8.02	8.30
	3	3	10.5	0.10	0.20	10.09	10.91
2005	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1						
	2	14	9.4	14.16	0.99	7.40	11.36
	3	825	8.3	0.55	0.03	8.27	8.37
2006	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	683	4.7	0.19	0.02	4.62	4.69
	2	373	8.3	1.04	0.05	8.20	8.41
	3	637	9.3	0.97	0.04	9.23	9.39
	4	11	11.1	0.76	0.27	10.54	11.60
2007	Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
	1	11	5.0	0.71	0.26	4.50	5.53
	2	963	5.5	0.55	0.02	5.44	5.54
	3	205	9.6	1.95	0.10	9.42	9.81
	4	166	9.6	0.64	0.06	9.49	9.74

LAKE SURVEY REPORT

Type of Survey

Initial Survey

Re-Survey

Lake Name West Boggs	County Martin & Daviess	Date of survey (Month, day, year) 6/11/07-6/19/07
Biologist's name Dave Kittaka, Debbie King	Date of approval (Month, day, year) 5/1/2008	

LOCATION

Quadrangle Name Odon and Loogootee	Range 5W	Section 1,2,3,26,27,34,35
Township Name 3N & 4N	Nearest Town Loogootee	

ACCESSIBILITY

State owned public access site		Privately owned public access site		Other access site	
Surface acres 622	Maximum depth 26	Average depth 10	Acre feet 6,220	Water level 510 Ft. MSL	Extreme fluctuations 3 Feet
Location of benchmark					

INLETS

Name Shurm Creek	Location T3N, R5W, S4	Origin Runoff
Little Boggs Creek	T4N, R5W, S26	Runoff

OUTLETS

Name Little Boggs Creek	Location T3N, R5W, S1
Water level control	

POOL	ELEVATION (Feet MSL)	ACRES	Bottom type
TOP OF DAM			<input type="checkbox"/> Boulder
TOP OF FLOOD CONTROL POOL			<input checked="" type="checkbox"/> Gravel
TOP OF CONSERVATION POOL			<input checked="" type="checkbox"/> Sand
TOP OF MINIMUM POOL			<input checked="" type="checkbox"/> Muck
STREAMBED			<input checked="" type="checkbox"/> Clay
			<input type="checkbox"/> Marl

Watershed use

Agricultural lands and West Boggs Park, 8,492 acres total area.

Development of shoreline

Public swimming beach, boat ramp, picnic areas, private homes, boat rental concession, handicap fishing pier, golf course, and restaurant.

Previous surveys and investigations

Fisheries survey 1972, 1973, 1977, 1979, 1980, 1983, 1985, 1987, 1991, 1995, 1997, 1999, 2002, 2003, 2004, 2005 and 2006. Creel surveys 1989, 2004.

Complete fisheries renovation 1994.

SAMPLING EFFORT AT WEST BOGGS CREEK RESERVOIR 2007					
ELECTROFISHING	Day hours		Night hours		Total hours
TRAP NETS	Number of traps		Number of Lifts		Total effort
GILL NETS	Number of nets		Number of Lifts		Total effort
ROTIENONE	Gallons	ppm	Acre Feet Treated	SHORELINE SEINING	Number of 100 Foot Seine Hauls

PHYSICAL AND CHEMICAL CHARACTERISTICS					
Color			Turbidity		
Alkalinity (ppm)*			pH		
Surface: 51.3		Bottom:	Surface:		Bottom:
Conductivity: 220 micromhos			Air temperature: 90 °F		
Water chemistry GPS coordinates: N 38.72311777 W -86.92332613					

TEMPERATURE AND DISSOLVED OXYGEN (D.O.)								
DEPTH (FEET)	Degrees (°F)	D.O. (ppm)	DEPTH (FEET)	DEGREES (°F)	D.O. (ppm)	DEPTH (FEET)	DEGREES (°F)	D.O. (ppm)
SURFACE	80.1	7.8	36			72		
2	80.1	7.4	38			74		
4	77.9	6.2	40			76		
6	77.0	4.9	42			78		
8	76.6	4.8	44			80		
10	76.3	4.0	46			82		
12	75.4	2.6	48			84		
14	75.0	2.4	50			86		
16	70.3	1.5	52			88		
18	64.0	1.4	54			90		
20	61.2	1.4	56			92		
22	59.0	1.3	58			94		
24			60			96		
26			62			98		
28			64			100		
30			66					
32			68					
34			70					

COMMENTS

WP-181

*ppm-parts per million

SPECIES AND RELATIVE ABUNDANCE OF FISHES COLLECTED BY NUMBER AND WEIGHT AT W. BOGGS 2007

*Common names of fishes recognized by the American Fisheries Society.

** Average fish weight used.

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF BLUEGILL AT WEST BOGGS, 2007									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5	6	0.1	*	1	19.5				
2.0	60	1.4	0.01	1	20.0				
2.5	42	1.0	0.02	1,2	20.5				
3.0	265	6.2	0.03	2	21.0				
3.5	1712	39.8	0.03	2,3	21.5				
4.0	1115	25.9	0.05	2,3	22.0				
4.5	567	13.2	0.07	2,3,4	22.5				
5.0	175	4.1	0.09	2,3,4	23.0				
5.5	96	2.2	0.12	3,4	23.5				
6.0	115	2.7	0.17	3,4,5	24.0				
6.5	96	2.2	0.20	3,4	24.5				
7.0	48	1.1	0.24	3,4,5	25.0				
7.5					25.5				
8.0					26.0				
8.5					TOTAL	4298	100.0		
9.0									
9.5									
10.0									
10.5									
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
ELECTROFISHING CATCH	1075/hr		GILL NET CATCH	N/A		TRAP NET CATCH	N/A		

* less than 0.01lb

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF GIZZARD SHAD AT WEST BOGGS, 2007									
TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0	3	0.2	*	yoy	19.0				
1.5	2	0.1	*	yoy	19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0	2	0.1	0.03	1	22.0				
4.5	81	6.0	0.04	1,2	22.5				
5.0	612	45.3	0.04	2	23.0				
5.5	210	15.5	0.05	2	23.5				
6.0	23	1.7	0.07	2,3	24.0				
6.5	11	0.8	0.10	1,2	24.5				
7.0	5	0.3	0.11	2	25.0				
7.5	16	1.2	0.16	2,3	25.5				
8.0	42	3.1	0.19	2,3,4	26.0				
8.5	84	6.2	0.23	2,3,4	TOTAL	1350	100.0		
9.0	75	5.5	0.26	3,4					
9.5	75	5.5	0.30	3,4					
10.0	42	3.1	0.34	3,4					
10.5	22	1.6	0.41	3,4					
11.0	17	1.3	0.47	3,4					
11.5	20	1.5	0.51	2,3,4					
12.0	6	0.5	0.61	3,4					
12.5	2	0.1	0.68	3					
13.0	2	0.1	0.76	3					
13.5									
14.0									
14.5									
15.0	2	0.1	1.11	3					
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
ELECTROFISHING CATCH		338.0/hr		GILL NET CATCH		N/A		TRAP NET CATCH	N/A

* less than 0.01lb

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF LARGEMOUTH BASS AT WEST BOGGS, 2007

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0	4	1.9	3.70	5,6,7
1.5					19.5	3	1.4	4.10	6,7
2.0					20.0	1	0.5	4.49	7
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0					22.0				
4.5	2	1.0	0.05	1	22.5				
5.0	3	1.4	0.06	1	23.0				
5.5	3	1.4	0.08	1	23.5				
6.0	5	2.4	0.11	1	24.0				
6.5	2	1.0	0.14	1	24.5				
7.0	2	1.0	0.17	1	25.0				
7.5					25.5				
8.0					26.0				
8.5	2	1.0	0.29	1,2	TOTAL	207	100.0		
9.0	1	0.5	0.37	2					
9.5	1	0.5	0.37	1					
10.0	1	0.5	0.43	3					
10.5	3	1.4	0.53	2					
11.0	3	1.4	0.58	2					
11.5	8	3.9	0.70	2,3					
12.0	6	2.9	0.81	2					
12.5	13	6.3	0.92	2,3,4					
13.0	17	8.2	1.09	2,3,4,5					
13.5	19	9.2	1.24	3,4,5					
14.0	15	7.2	1.36	2,3,4,5					
14.5	14	6.8	1.60	2,3,4,5					
15.0	16	7.7	1.82	3,4,5					
15.5	21	10.1	1.98	4,5,6					
16.0	11	5.3	2.22	4,5,6,7					
16.5	17	8.2	2.38	5,6,9					
17.0	7	3.4	2.57	5,6					
17.5	2	1.0	3.02	5					
18.0	2	1.0	3.31	6,7					
18.5	3	1.4	3.63	6,7					
ELECTROFISHING CATCH			52.0/hr	GILL NET CATCH	N/A		TRAP NET CATCH	N/A	

NUMBER, PERCENTAGE, WEIGHT, AND AGE OF REDEAR SUNFISH AT WEST BOGGS, 2007

TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH	TOTAL LENGTH (inches)	NUMBER COLLECTED	PERCENT OF FISH COLLECTED	AVERAGE WEIGHT (pounds)	AGE OF FISH
1.0					19.0				
1.5					19.5				
2.0					20.0				
2.5					20.5				
3.0					21.0				
3.5					21.5				
4.0	2	1.0	0.06	2	22.0				
4.5	12	5.9	0.08	2,3	22.5				
5.0	36	17.8	0.10	2,3	23.0				
5.5	55	27.2	0.12	3,4	23.5				
6.0	43	21.3	0.16	3,4	24.0				
6.5	16	7.9	0.20	3,4	24.5				
7.0	17	8.4	0.25	3,4	25.0				
7.5	7	3.5	0.33	3,4	25.5				
8.0	9	4.5	0.38	3,4,5	26.0				
8.5	3	1.5	0.43	3	TOTAL	202	100.0		
9.0	2	1.0	0.51	3					
9.5									
10.0									
10.5									
11.0									
11.5									
12.0									
12.5									
13.0									
13.5									
14.0									
14.5									
15.0									
15.5									
16.0									
16.5									
17.0									
17.5									
18.0									
18.5									
ELECTROFISHING CATCH		51.0/hr		GILL NET CATCH		N/A		TRAP NET CATCH	N/A

Lake: West Boggs
 Date: 6/11/2007 to 6/20/2007
 Species: Bluegill

Length group (in)	Total # number	Sub-sample	Age					
			1	2	3	4	5	6
1.0								
1.5	6.0	1	6					
2.0	60.3	9	60					
2.5	42.2	7	36	6				
3.0	265.2	9		265				
3.5	1712.0	11		1556	156			
4.0	1115.2	12		558	558			
4.5	566.6	10		57	453	57		
5.0	174.8	10		35	122	17		
5.5	96.4	9			21	75		
6.0	114.5	10			57	46	11	
6.5	96.4	14			7	90		
7.0	48.2	9			5	38	5	
7.5								
Total	4298.0	111	102	2477	1380	322	17	0

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	102	2.4	0.08	0.03	2.3	2.5
2	2477	3.9	0.13	0.01	3.8	3.9
3	1380	4.6	0.36	0.02	4.5	4.6
4	322	6.1	0.66	0.05	6.0	6.2
5	17	6.6	0.23	0.12	6.3	6.8
6	0	0.0	0.00	0.00	0.0	0.0

Lake: West Boggs
 Date: 6/11/2007 to 6/20/2007
 Species: Gizzard shad

Length group (in)	Total # number	Sub-sample	Age					
			1	2	3	4	5	6
1.0								
1.5								
2.0	1.6	1		2				
2.5	80.8	11		7	73			
3.0	612.1	12			612			
3.5	209.7	7			210			
4.0	23.3	9			16	8		
4.5	10.9	6	2		9			
5.0	4.7	3			5			
5.5	15.5	10			14	2		
6.0	41.9	12			14	24	3	
6.5	83.9	12			7	35	42	
7.0	74.6	12				43	31	
7.5	74.6	9				25	50	
8.0	41.9	11				23	19	
8.5	21.7	11				16	6	
9.0	17.1	11				6	11	
9.5	20.2	10			2	14	4	
10.0	6.2	4			2	5		
10.5	1.6	1				2		
11.0	1.6	1				2		
11.5								
12.0								
12.5								
13.0	1.6	1				2		
Total	1345.3	154	11	963	205	166	0	0

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	11	5.0	0.71	0.26	4.5	5.5
2	963	5.5	0.55	0.02	5.4	5.5
3	205	9.6	1.95	0.10	9.4	9.8
4	166	9.6	0.64	0.06	9.5	9.7

Lake: West Boggs
 Date: 6/11/2007 to 6/20/2007
 Species: Largemouth bass

Length group (in)	Total # number	Sub-sample	Age								
			1	2	3	4	5	6	7	8	9
1.0											
1.5											
2.0											
2.5	2	2	2								
3.0	3	3	3								
3.5	3	3	3								
4.0	5	5	5								
4.5	2	2	2								
5.0	2	2	2								
5.5											
6.0											
6.5	2	2	1	1							
7.0	1	1		1							
7.5	1	1	1								
8.0	1	1			1						
8.5	3	3			3						
9.0	3	3			3						
9.5	8	7			6	2					
10.0	6	6			6						
10.5	13	13			6	6	1				
11.0	17	13			5	9	1	1			
11.5	19	16				10	8	1			
12.0	15	13			1	7	3	3			
12.5	14	10			1	1	4	7			
13.0	16	12				1	11	4			
13.5	21	10				13	6	2			
14.0	11	11				2	6	1	2		
14.5	17	13					8	8			1
15.0	7	6					4	4			
15.5	2	2					2				
16.0	2	2						1	1		
16.5	3	3						1	2		
17.0	4	4					1	1	2		
17.5	3	3						1	2		
18.0	1	1							1		
18.5											
Total	207	173	19	33	38	44	44	18	10	0	1

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1	19	6.3	1.62	0.29	5.7	6.9
2	33	12.2	1.61	0.22	11.7	12.6
3	38	13.4	0.88	0.15	13.1	13.7
4	44	14.9	0.82	0.14	14.6	15.2
5	44	15.8	1.55	0.19	15.5	16.2
6	18	17.2	1.21	0.26	16.7	17.7
7	10	18.7	1.93	0.44	17.8	19.5
8						
9	1	16.8	0.00	0.00	16.7	16.8

Lake: West Boggs
 Date: 6/11/2007 to 6/20/2007
 Species: Redear sunfish

Length group (in)	Total # number	Sub-sample	Age					
			1	2	3	4	5	6
1.0								
1.5								
2.0	2	2		2				
2.5	12	12		10	2			
3.0	36	12		12	24			
3.5	55	9			49	6		
4.0	43	11			31	12		
4.5	16	11			15	1		
5.0	17	9			15	2		
5.5	7	7			4	3		
6.0	9	8			6	1	2	
6.5	3	3			3			
7.0	2	2			2			
Total	202	86	0	24	150	25	2	0

Age	Number	Mean TL	Var	SE	Lo 95%CI	Up 95%CI
1						
2	24	5.0	0.11	0.07	4.8	5.1
3	150	6.3	0.85	0.08	6.1	6.4
4	25	6.5	0.55	0.15	6.2	6.8
5	2	8.3	0.00	0.00	8.3	8.3

GPS LOCATION OF SAMPLING EQUIPMENT AT WEST BOGGS 2007								
GILL NETS			TRAP NETS			ELECTROFISHING		
1	N	W	1	N	W	1	N	38.7382709
	N	W	2	N	W		N	W -86.9291195
2	N	W	3	N	W	2	N	38.7460998
	N	W	4	N	W		N	W -86.9356589
3	N	W	5	N	W	3	N	38.741943
	N	W	6	N	W		N	W -86.9415444
4	N	W	7	N	W	4	N	38.7328965
	N	W	8	N	W		N	W -86.9380984
5	N	W	9	N	W	5	N	38.7391558
	N	W	10	N	W		N	W -86.9327942
6	N	W	11	N	W	6	N	38.7348216
	N	W	12	N	W		N	W -86.9338395
7	N	W	13	N	W	7	N	38.7311087
	N	W	14	N	W		N	W -86.9285672
8	N	W	15	N	W	8	N	38.7213106
	N	W	16	N	W		N	W -86.9256497
9	N	W	17	N	W	9	N	38.7173314
	N	W	18	N	W		N	W -86.9546116
10	N	W	19	N	W	10	N	38.7202476
	N	W	20	N	W		N	W -86.9528069
11	N	W				11	N	38.7203713
	N	W					N	W -86.9496907
12	N	W				12	N	38.7172436
	N	W					N	W -86.9453615
13	N	W				13	N	38.7210371
	N	W					N	W -86.9410675
14	N	W				14	N	38.7258793
	N	W					N	W -86.9362545
15	N	W				15	N	38.7297288
	N	W					N	W -86.9231189
16	N	W				16	N	38.7310259
	N	W					N	W -86.9244046
17	N	W				17	N	W
	N	W					N	W
18	N	W				18	N	W
	N	W					N	W
19	N	W				19	N	W
	N	W					N	W
20	N	W				20	N	W
	N	W					N	W